

NATO UNCLASSIFIED

MEMORANDUM OF AGREEMENT (MOA)

BETWEEN

THE NORTH ATLANTIC TREATY ORGANIZATION

REPRESENTED BY THE

NATO COMMUNICATIONS AND INFORMATION SYSTEMS SERVICES AGENCY  
(NCSA)

AND

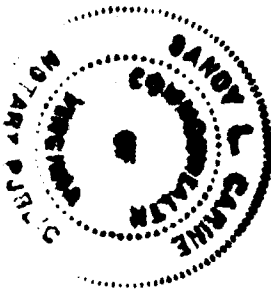
THE GOVERNMENT OF THE UNITED STATES OF AMERICA

REPRESENTED BY THE

DEFENSE INFORMATION SYSTEMS AGENCY (DISA)

CONCERNING THE INTERCONNECTION OF THE NATO CORE NETWORK (NCN)

AND THE U.S. DEFENSE SWITCHED NETWORK (DSN) VIA GATEWAYS



County/City of Arlington  
Commonwealth/State of Virginia  
I certify this to be a complete, full, true and  
exact reproduction of the original document.  
Certified this 7th day of Nov. 2007  
Sandy L. Carme #4122947  
Notary Public  
My commission expires 30 Sept 2010

NATO UNCLASSIFIED

N A T O   U N C L A S S I F I E D

SECTION 1 – PREAMBLE

**ARRANGEMENTS FOR THE INTERCONNECTION OF THE U.S. DEFENSE  
SWITCHED NETWORK (DSN) AND THE NATO CORE NETWORK (NCN) VIA  
GATEWAYS**

(1) WHEREAS the Government of the United States of America, represented by the Defense Information Systems Agency (DISA), and the North Atlantic Treaty Organization (NATO), represented by the NATO Communications and Information System (CIS) Services Agency (NCSA) on behalf of NATO, hereinafter referred to as the Parties, recognize the need to maintain gateway interconnection between their respective common-user voice switched systems to benefit from rationalizing communications resources, improving survivability and providing a cost-effective means of extending interoperable voice and dial up video/data service to users;

(2) And WHEREAS the respective Parties have supported the continuation of an electronic network interconnection between the NATO Core Network (NCN) and the U.S. Defense Switched Network (DSN) to enable communications between users of the NCN and DSN;

(3) And WHEREAS the respective Parties support the implementation of the NATO policy contained in AC 322-D(2003)014, *"Policy on the Implementation of the Partially Rationalized NATO General Communications System (NGCS)"*;

(4) Now, THEREFORE, taking into account the foregoing, DISA, on behalf of the U.S. Government (USG) and NCSA on behalf of NATO, hereby enter into the following agreements.

**SECTION 2 – PURPOSE**

The purpose of this Memorandum of Agreement (MOA) is to record the agreements reached between DISA, and NCSA relating to the establishment, assignment, utilization, practices, procedures and payment for telecommunications services shared or provided between the DSN and the NCN.

**SECTION 3 – SCOPE**

(1) DISA and NCSA, acting as the service providers for the USG and NATO respectively, wish to establish automatic switched voice network interconnections between the DSN and NCN at locations in both Europe and the Continental United States (CONUS) under arrangements specified in Annexes to this MOA. Should the Parties to this MOA subsequently agree to add, change or delete network interconnections, these will be documented in the annexes of this MOA.

(2) Agencies involved. The following agencies have coordinated in the development or have interest in this agreement:

## NATO UNCLASSIFIED

NCSA and SHAPE on behalf of NATO

DISA and United States Chairman of the Joint Chiefs of Staff, J6 on behalf of USG

### SECTION 4 - ORGANIZATIONAL AND TECHNICAL RESPONSIBILITIES

(1) The Director, DISA, on behalf of the USG, and the Director, NCSA on behalf of NATO, will be the responsible Parties, also referred to as the Communications Authorities, for carrying out the provisions of this MOA. The development of further technical and operational proposals and procedures for telecommunications service that result from this MOA shall be accomplished through close liaison and consultation between these Parties and their delegated representatives.

(2) The operational control of the network interfaces and other network control functions shall be the joint responsibility of the respective Service Provision Authorities. Specifically, the Service Provision Authorities are the DISA, on behalf of the USG, and NCSA, on behalf of NATO. These authorities shall coordinate control actions in regards to the interchange of services/traffic between the DSN and the NCN as specified in the Annexes.

(3) The U.S. Joint Staff, on behalf of the USG, and SHAPE, on behalf of NATO, will be responsible for identifying requirements to be satisfied by the network interconnections.

(4) The adequacy of the capacity and/or number of existing gateways will be reviewed annually as required by Section 10 Paragraph (1) of this MOA and increased or decreased, according to Annex A Paragraph 2(a) as needed.

(5) Detailed responsibilities and provisions for individual site interconnections and gateways are identified in Annex A.

(6) Authorized NATO users in CONUS shall be provided access to the gateway via the DSN in accordance with NATO policy contained on *NATO General Communications System (NGCS)* as identified in Annex B.

### SECTION 5 - IMPLEMENTATION

(1) In the implementation of this MOA, each Party has overall responsibility for its own communications systems ( NATO for NCN and DISA for DSN) and for fulfilling its own communication requirements. This responsibility includes: (1) carrying out and bearing the cost of procurement, installation, provisioning, operation and maintenance of equipment required; and (2) acquiring and bearing the cost of any services (such as leasing circuits) required. The Parties recognize, however, each will require the assistance of the other to support the interface of the two communications systems. Therefore, Annex A to this MOA specifies the required interconnections, and sets out in detail the responsibilities for the individual site interconnections. The related working arrangements are also detailed in Annex A.

## NATO UNCLASSIFIED

(2) It is envisaged that future growth and enhancement of the capabilities and services covered by this MOA will be subject to authorization, appropriation, and availability of NATO and USG funds. Implementation of any subsequent annexes or amendments will also be in accordance with each Party's applicable laws and regulations.

(3) In order to implement this MOA, it will be necessary for the USG and NATO to maintain sites where telecommunications equipment will be located; to provide and install necessary equipment; to provide and maintain interconnected circuits; to operate and maintain (O&M) equipment; to provide directory assistance service, to provide English speaking points of contact in the voice network control center of performance monitoring and fault management on a 24 hour/7days basis, and to provide operational and logistical support for the interconnected systems. Except where specifically noted in the relevant annex, the parties owning each site will operate and maintain that site. Closure of such a site due to force reductions, technical necessity, damage or destruction will not constitute a breach of this agreement.

(4) Each Party agrees not to transfer title to or possession of any defense article, related training or other defense service furnished by the other Party to anyone not an officer, employee or agent of the receiving Party, and not to use or permit the use of such article, related training, or other service for purposes other than those for which it was furnished.

(5) DISA, and NCSA will jointly perform a Service Acceptance Testing against current NATO requirements. After the signature of this MOA and completion of Comformance and Operational Tests, DSN circuit switched services will be made to NATO through the NCN gateway.

(6) NGCS Infrastructure installed at national facilities will remain the property of NATO and as such form an integral component of the overall systems as assigned to NCSA.

### SECTION 6 – FUNDING

(1) The Parties have entered into this MOA with the understanding that the exchange of communications and switched system support and related supplies and services to be undertaken pursuant to this MOA will be an exchange of equivalent value. If an annual or out-of-cycle review (as discussed in Section 10) demonstrates that the value of the communications support and related supplies and service being exchanged is not equivalent, then the Parties will enter into negotiations to adjust the service provided to achieve substantial equivalence. If such adjustment is not possible, then the Parties may terminate this MOA as stated in Section 12. It is understood between the Parties that the basis for determining value will be the hardware and software equipment purchased by each Party, the availability and capability gained by each Party under this MOA, and not the number of communications or volume of communications sent or received by either Party. Any balance due either Party after negotiations may be satisfied at any time mutually agreeable to the Parties. Any remaining balance due either Party at the end of the term of this MOA or upon termination of this MOA shall be satisfied no later than 30 days after the date that this MOA ceases to be in force.

## **NATO UNCLASSIFIED**

(2) Switch interface equipment, and gateway operating and control equipment (hardware and software) will be considered part of the NCN and will be funded, procured, implemented, operated and maintained by NATO.

(3) The USG and NATO will, on a case-by-case basis to be documented in future amendments to the annexes of this agreement, share the cost of new facilities required to provide interconnected transmission paths, switch interface equipment, and gateway operating and control equipment (hardware and software). The procurement of new gateway facilities is subject to the authorization, appropriation and availability of USG and NATO funds.

(4) To the extent feasible, transmission facilities between interconnected DSN and NCN switches will be provided via approximately equal distance transmission facilities of the two networks to a common (or convenient) location, where the inter-switch connection will be made between the two networks. Both Parties agree to bear the costs of transmission facilities and the costs of required switch terminations on their own system, as defined in the annexes of this MOA.

(5) In accordance with the Paris Protocol, the NATO Ottawa Agreement and NATO Document C-M (56)34 as approved by the Council in Document C-R(56)12 dated 22 March 1956 to which the Charter for the NC3O (C-M(2005)0036, dated 27 April 2005) refers, certain work and services carried out in implementation of NATO common infrastructure projects are exempt from all visible taxes. DISA will arrange that such United States federal, state or local taxes and duties not be incorporated in the price to be paid by NATO in the event that costs are incurred.

(6) It is understood that NCSA is not the budget holder, but acts as a service provider on behalf of NATO on the basis of delegated budget authority and the implementation of this MOA is contingent upon delegation and availability of funds.

### **SECTION 7 – WAIVER OF CLAIMS**

(1) Neither Party, its agencies, officers or employees will be held liable to the other Party for personal injury or property damage arising from, or incidental to (a) the possession, transfer, maintenance, use or operation of communications equipment or related material or (b) the provision or exchange of communications services, under this agreement.

(2) Where applicable, Third Party claims arising out of or in connection with this MOA will be dealt with in accordance with the NATO Status of Forces Agreement (SOFA) including any amendments thereto and any other related supplementary agreement(s).

### **SECTION 8 – SECURITY**

In order to prevent unauthorized disclosure or compromise of the other Party's classified articles, services, documents and information, each Party will provide substantially the same

## NATO UNCLASSIFIED

degree of security protection it would provide to protect its own classified articles, services, documents and information of equivalent classification, bearing in mind, as a minimum, existing security arrangements and procedures prevailing between them.

### SECTION 9 – RELEASE OF INFORMATION TO THE PUBLIC

(1) The release of information (formal releases or answers to queries) to the press or public concerning the arrangements and activities resulting from this MOA will be made only after being coordinated between the Parties in advance. Questions addressed to one Party concerning the activities of the other will be referred to the responsible Party concerned.

(2) Each Party will take all lawful steps available to keep information exchanged in confidence under this MOA free from disclosure under any legislative provision unless the other consents to such disclosure.

(3) To assist in providing the desired protection, each Party will mark such information furnished to the other with a legend indicating the country of origin, the conditions of release and the fact that the information relates to the MOA and that it is furnished in confidence.

(4) Unclassified information provided by either Party to the other in confidence, and bearing notation that it is to be held in confidence, and information produced by either pursuant to this MOA requiring confidentiality will be safeguarded in a manner that ensures its proper protection from unauthorized disclosure.

### SECTION 10 – REVIEW AND AMENDMENT

(1) The services and capabilities covered under this MOA will be reviewed annually by representatives of the Parties. However, either party may initiate an out-of-cycle review if it believes the circumstances so warrant.

(2) Non-substantive or matter-of-fact changes to the existing annexes may be made upon the mutual written agreement of the Service Provision Authorities; within NCSA this falls within SMD (System Manager).

(3) Substantive changes (e.g. those which incur a substantial increased financial undertaking of one Party or changes to services and capabilities that require additional annexes) will require review and approval by the signatories.

### SECTION 11 – SUPERSESSION

This MOA supersedes the 22 April 1994 agreement entitled, *Memorandum of Agreement concerning the Interconnection of the Initial Voice Switched Network (IVSN) of the NATO Integrated Communications System and the Defense Switched Network (DSN) of the U.S.*

NATO UNCLASSIFIED

*Defense Information Infrastructure.* Should any questions arise regarding residual matters related to the former interconnection of the IVSN and DSN networks, those questions will be resolved by reference to the provisions of the superseded 1994 agreement.

**SECTION 12 – TERMINATION**

(1) This MOA will remain in force for a period of five years, but may be terminated by either Party 90 days after written notification is given to the other participant or sooner if mutually agreed. Any proposal for substantive modification or termination will be subject to immediate negotiation between the Parties of this agreement. Both Parties agree to provide service to the other as agreed for a minimum of 90 days following the proposal date, if practicable, while modification or termination negotiations are conducted.

(2) Each Party will bear its own costs resulting from the termination of this MOA.

**SECTION 13 – DISPUTES**

Any disagreement regarding the interpretation or application of this MOA will be resolved by consultation between the Parties and will not be referred to any national or international tribunal or third Party for settlement.

**SECTION 14 – EFFECTIVE DATE**

This agreement will come into effect upon signature by both Parties. The effective date is the date of the last signature. IN WITNESS THEREOF, the undersigned, being duly authorized, have signed this MOA.

For the North Atlantic  
Treaty Organization:

Signature:

Name:

Title:

Agency:

Date Signed:

For the Government of  
the United States:

Signature:

Name:

Title:

Agency:

Date Signed:

ANNEX A

**ARRANGEMENTS FOR THE INTERCONNECTION OF THE U.S. DEFENSE SWITCHED NETWORK (DSN) AND THE NATO CORE NETWORK (NCN) VIA INTERCONNECTED GATEWAYS**

**1. Purpose**

The practices and procedures set forth in this annex establish the arrangements to be used for the interchange of authorized communications between the DSN and the NCN.

**2. Requirement**

The following requirements dictate the need to maintain and, as required, to rehome and potentially to expand the existing automated network interconnections between the DSN and the NCN:

- Improve the survivability and flexibility of the interconnection of the DSN and NCN networks;
- Build a network of networks to support the voice communication needs of military and civilian leaders to support operational planning, execution and consultation between NATO nations and the Organization.
- Enhance coordination between the NATO, NATO Allies and U.S. command staffs.

To satisfy these requirements, the following provisions and parameters have been established:

**(a) Gateways**

- (1) The agreed implementation addresses exchange of voice traffic via NCN-DSN gateway locations identified in Paragraph 2(c) of this annex.
- (2) A small number of alternate or additional gateway locations may be established or existing gateways deleted by mutual agreement of officials of the Service Provision Authorities identified in Paragraph 6 of this annex, after appropriate prior notification and approval of their respective higher authorities, without renegotiating the MOA or this annex. Any such changes will be recorded by modifying this annex and specifying the date of implementation.
- (3) The capacity or number of connections for existing gateways may be increased or decreased by mutual agreement of officials of the Service Provision Authorities identified in Paragraph 6 of this annex, after appropriate prior notification and approval of their respective higher authorities, without renegotiating the MOA or this annex. Any such changes will be recorded by modifying this annex and specifying the date of implementation.



**(b) Interface Equipment**

The gateway equipment provided by NATO for use at USG sites will remain the property of NATO.

**(c) Interface Information**

- (1) Both Parties have agreed to the NCN-DSN interconnections at the following locations:

| <b>Location</b> | <b>USG Facility</b>                                                                         | <b>NATO Facility</b>                                                             |
|-----------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Belgium         | 39 <sup>th</sup> Signal Battalion<br>Building 19<br>Chievres, Belgium                       | SHAPE Installation<br>Sector Mons SHAPE Bunker<br>Casteau, Belgium               |
| Germany         | 43 <sup>rd</sup> Signal Battalion<br>Campbell Barracks<br>Building 7<br>Heidelberg, Germany | CC-Land HQ Heidelberg<br>Campbell Barracks<br>Building 60<br>Heidelberg, Germany |
| Italy           | Naval Support Activity<br>Building 440<br>Capodichino/Naples, Italy                         | Allied Joint Force Command<br>Naples<br>Building M<br>Bagnoli/Naples, Italy      |
| CONUS           | 1 CS, SCMO<br>175 Sweeny Blvd<br>Langley, VA 23665-2289                                     | NCSA Sector Norfolk<br>7857 Blandy Road, Suite 100<br>Norfolk, VA 23551-2490     |

- (2) Automatic interconnected gateway interface equipment, technical characteristics of the electrical connections and resource responsibilities of the participants shall be in accordance with Section 7 of this annex.

**(d) CONUS-based NCN equipment**

All NATO equipment including NCN switches and bandwidth management equipment installed in the USG facility will remain the property of NATO and be operated and maintained as per paragraph 3(f) in this annex.

**(e) Traffic Volume**

Traffic measurements and other verifiable thresholds will determine the need to increase or decrease the capacity of the interconnections, which may be adjusted by mutual agreement of the Service Provision Authorities identified in paragraph 6 of this annex without renegotiating the MOA. Any changes

## NATO UNCLASSIFIED

### Annex A

will be recorded by modifying this annex and specifying the date of implementation.

#### (f) **Traffic Precedence**

Although both the DSN and NCN support multi-level precedence and preemption, the gateway interfaces will only be operated at routine precedence.

#### (g) **Security/Classification**

- (1) No classified traffic will be passed in the clear between the networks.
- (2) The type of call (unsecure or secure) is transparent to and independent of the gateway. Furthermore, distribution and authorization to use common communications security (COMSEC) keying materials for end-to-end encryption devices will determine the ability to complete secure calls across the gateway. In recognition of these realities, technical and procedural matters (to include authorization/distribution of appropriate keying materials) related to the establishment of secure calls using end-to-end encryption devices will be addressed separately and apart from this MOA.
- (3) Since the gateways are not to carry/transmit any classified calls/information in the clear, the communications authorities will publish security guidelines addressing use of network interfaces in appropriate formats and media as they may each desire. Guidelines require that users placing calls via end-to-end encryption devices possess required security access (to include NATO access where appropriate) for the level of information discussed.
- (4) Security issues that potentially impact the service integrity of NCN, DSN, or their users, shall be immediately brought to the attention of the security managers of the respective network.

#### (h) **Grade of Service**

- (1) The Grade of Service offered by the interconnection arrangements shall be consistent with the GOS offered by the NCN and DSN.
- (2) If the services to be provided under the MOA are unsatisfactory, alternative solutions shall be provided by the dissatisfied party at the annual or out-of-cycle review.

#### (i) **Maintenance Procedures**

Maintenance procedures to be applied have been agreed upon between the Service Provision Authorities in accordance with their respective

NATO UNCLASSIFIED

Annex A

requirements. Outage reports will be generated according to standard practices of each operating authority for their own internal use.

(j) **Reports**

Reports will not be required by respective Service Provision Authorities from the other participant's telecommunications facilities identified in paragraph 2(c) of this annex.

(k) **Access Control**

- (1) The USG will implement access control procedures to control the volume of traffic passing from the DSN to the NCN.
- (2) NATO will implement similar access control procedures with respect to NCN subscriber and traffic from the NCN to the DSN.
- (3) The USG and NATO will require effective access control procedures to be available in all other networks to which the DSN and NCN are connected on an automatic basis.

3. **Responsibilities and Coordination**

(a) **Operations**

The USG and NATO telecommunications facilities identified herein shall be operated in compliance with the terms of this MOA.

(b) **Traffic and Interface Control**

- (1) Traffic management between the NCN and DSN is accomplished through mutual coordination between DISA and NCSA.
- (2) Reciprocal requirements for alternate routing and other traffic restore procedures between or through the networks, although possibly pre-established, will be coordinated between the respective Service Provision Authorities unless otherwise agreed between these authorities.
- (3) Local control of NATO traffic entering the DSN is implemented by the connected DSN switch. DSN traffic entering the NCN is under the control of the connected NCN switch. Where appropriate, and with the approval of the Service Provision Authorities, control of traffic flow between the gateway switches can be exercised locally by temporary directionalization of individual interconnecting circuits or by other agreed upon methods. Metering is accomplished on a trunk group basis at the NCN gateway switches via existing NATO capabilities and at the DSN gateway switches via existing USG capabilities.

- (4) For interface purposes, the DSN switch acts as the interface control station for such matters as traffic management. Neither station will intentionally remove online equipment or inhibit traffic flow from the other network without prior coordination with the other connected station.
- (5) The network Service Provision Authorities, identified in paragraph 3.(b)(1) above, will inform each other in case of degraded network conditions and traffic constraints in their respective networks, which might affect the handling of traffic under this MOA. Calls offered by one network at an interface shall be accepted without impediment by the other network and handled according to the best of that network's capabilities. Neither a USG nor NATO facility will refuse to accept calls from the other as a means of simulating actual failures during exercises unless mutually agreed.

**(c) Official Traffic**

It shall be the responsibility of either participant initiating calls into the other participant's network to limit such communications to official traffic authorized within the terms of this MOA.

**(d) Implementation Responsibilities**

The development, procurement, engineering and installation of the gateway and interface equipment enabling traffic from the CONUS-based NCN switches into the CONUS DSN gateways will be a NATO responsibility, to include any leased trunks or lines required to connect the NCN switches to the gateways. The USG is similarly responsible for the trunk connection from the gateways to the DSN.

**(e) Safeguarding of Property**

A Party to this agreement which has received equipment and associated material from the other Party under the provisions of this MOA shall take appropriate measures to safeguard such property from loss or damage. In case of an emergency requiring destruction, both NATO and USG custodians will comply with AMSP 293.

**(f) Operations & Maintenance**

NATO will provide unit level maintenance and provide spares for the NCN switches and the CONUS gateways. Existing supply channels for exchanging equipment between the USG/NATO supply systems are utilized where practical/possible.

**(g) Access to Premises**

Access to premises will be allowed subject to current NATO and USG security regulations. All inspections or visits will be pre-arranged between the parties. Each party is responsible for facilitating access to its facilities by the other party's personnel in order to carry out official duties under this agreement. If third party commercial operators or service providers are responsible to a party for part of their infrastructure or equipment, that party will be responsible for the site access request for contractor personnel and for ensuring that such personnel possess valid security clearances to carry out their duties if required in that location. Neither party will be responsible for access problems, nor for any provisioning or repair delay due to difficulties in complying with these requirements.

#### 4. **Call Processing**

##### (a) **Routing**

USG and NATO authorities, connected to the respective networks, will be provided inter-network services by means of designated automatic interconnection gateways. Both parties will provide the most efficient routing within their respective networks as mutually agreed to by the delegated representatives of each party. The adequacy of the routing will be reviewed annually as required by section 10 paragraph (1) of this MOA.

##### (b) **Numbering Plan**

USG and NATO have agreed to the following numbering plan:

- **Calling from DSN into NCN:**
  - Using prefix "606" + "7 digit NCN number" provides direct calling capability to any 7- digit NCN numbers
  - Using prefix "604-4-ALLIES" (i.e., 6044255437) provides a second dial-tone capability for calling the various numbering plans required for accessing the other NDNs (i.e., any thing from 8 to 13 digits)
- **Calling from NCN and other NDNs into DSN:**
  - Users will dial "90", "01" + the 10 digit DSN number (KYX-KNX-XXXX) where 90 is the NCN Access Code, 01= US country code (E164) and K = 2 - 8; Y = 1 or 0; X = 0 - 9; and N = 2 - 9.

The detailed plan is described in NC3A's Technical Note 910, Rev 3, *NATO General Communications System (NGCS) Number, Dialing, Routing and Signaling Plan for the Circuit Switched Component*.

## NATO UNCLASSIFIED

### Annex A

#### 5. Applicability

The practices and procedures set forth in this annex apply to the USG and the NATO call originators as well as their telecommunications facilities handling calls under the terms of this MOA.

#### 6. Liaison and Points of Contact

The overall responsibility for the execution of this MOA rests with DISA for USG and NCSA for NATO. Where accomplishment of provisions of this MOA requires direct liaison, this shall be done at the lowest feasible organizational level without unnecessary delay. Information exchange shall be in the English language. Information of significance shall be via formal documents.

For the purpose of this MOA, the USG and NATO points of contact are provided below and the site specific POCs are included in attachments to this Annex:

| <b>SUBJECT/ROLE</b>                  | <b>USG</b>                                                                        | <b>NATO</b>                                                              |
|--------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Policy and Management                | DISA Headquarters<br>P.O. Box 4502<br>Arlington, VA 22204-4502                    | NCSA Headquarters<br>B-7010 SHAPE<br>BELGIUM                             |
| Overarching System Management issues | DSN Single System Manager<br>TEL: DSN 312-381-0300<br>Commercial:+1 703 882-0300  | NCSA SMD COE TIS<br>TEL: +32.6544.7554<br>NCSA System Support Manager    |
| Performance and Fault Management     | DISA Network Controller<br>DSN 314-430-6373<br>Commercial:+49 49-711-686-395415   | NCSA SMD COE TIS<br>TEL: +32.6544.7554                                   |
| Security Management                  | DSN Single System Manager<br>TEL: DSN 312- 381-0300<br>Commercial:+1 703 882-0300 | NCSA INFOSEC<br>Technical Center,<br>COMSEC Monitoring<br>+32 65 44.3564 |

#### 7. Technical Characteristics

The technical characteristics for the interconnections in each country are described in attachments 1-4 to this Annex.

**NATO UNCLASSIFIED**

Attachment 1 to Annex A

**Technical Characteristics of the DSN and NCN Core Switches in Belgium (BE)**

| <b>Title</b>                    | <b>USG</b>                     | <b>NATO</b>                    |
|---------------------------------|--------------------------------|--------------------------------|
| 1. Communications Facility      | Siemens EWSD                   | HICOM 350E                     |
| 2. Circuit Connectivity Points  | Chièvres, BE                   | Casteau SHAPE, BE              |
| 3. Number of Circuits           | 30                             | 30                             |
| 4. Circuit Type and Bandwidth   | 4 wire 2.048 Mbps              | 4 wire 2.048 Mbps              |
| 5. Circuit Restoration Priority | TSP0/R0                        | TSP0/R0                        |
| 6. Communications Mode          | Digital E1 PRI                 | Digital E1 PRI                 |
| 7. Alternative Route            | Multiple DSN-NCN Interconnects | Multiple DSN-NCN Interconnects |
| 8. Precedence (Highest)         | Routine                        | Routine                        |
| 9. Security Level               | Clear                          | Clear                          |
| 10. Termination Equipment       | DIU-60                         | DIU-N2(N4)                     |
| 11. COMSEC Equipment            | None                           | None                           |
| 12. Network Access              | NCN (606)<br>Other NDN (604)   | DSN ( <del>90001</del> )(ZZ01) |

**Resources Responsibilities of the DSN and NCN Core Switches in Belgium (BE)**

| <b>Resource</b>                                | <b>Chievres DSN</b> | <b>Casteau NCN</b> |
|------------------------------------------------|---------------------|--------------------|
| 1. Prepare Site                                | USG                 | NATO               |
| 2. Provide Termination Equipment               | USG                 | NATO               |
| 3. Install Termination Equipment               | USG                 | NATO               |
| 4. Operate and Maintain Interconnect Equipment | USG                 | NATO               |
| 5. Logistic Support for Interconnect Equipment | USG                 | NATO               |

**NATO UNCLASSIFIED**

NATO UNCLASSIFIED

Attachment 1 to Annex A

| Points of Contact in Belgium                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| USG                                                                                                                                                                                                                                                                                                                                                                                                                               | NATO                                                                                                                                                                                                                                                                                                                                         |
| <p>Mr. Patrick Kurzawa<br/>Supervisor, DSN<br/>Regional Operations and Manning Center<br/>(ROMC) Digital Telephone Exchange,<br/>39<sup>th</sup> Signal Battalion</p> <p><u>Location:</u><br/>Building 19, 39<sup>th</sup> Signal Battalion<br/>Chievres, Belgium</p> <p>Commercial: +32.68.27.5128<br/>DSN: 314-361-5128</p> <p>FAX: +32.68.27.5123<br/>DSN FAX: 314-361-5123</p> <p>Email: Patrick.kurzawa@benelux.army.mil</p> | <p>Mr. Don Bruce<br/>System Manager, Voice System<br/>Transmission Infrastructure Section<br/>NCSA/SHAPE</p> <p><u>Location:</u><br/>NCSA, SHAPE<br/>Casteau, Belgium</p> <p>Commercial: +32.6544.7360<br/>DSN: 314-423-7360</p> <p>FAX: +32.6544.7556<br/>DSN FAX: 314-423-7556</p> <p>Email: Donald.Bruce@nacosa.nato.int</p>              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>Mr. Michel Maes<br/>Engineer<br/>Transmission Infrastructure Section<br/>NCSA/SHAPE</p> <p><u>Location:</u><br/>NCSA, SHAPE<br/>Casteau, Belgium</p> <p>Commercial: +32.6544.7554<br/>DSN: 314-423-7554<br/>NATO Core Network: 254.7554</p> <p>FAX: +32.6544.7556<br/>DSN FAX: 314-423-7556</p> <p>Email: Michel.Maes@nacosa.nato.int</p> |



**NATO UNCLASSIFIED**

Attachment 2 to Annex A

**Technical Characteristics of the DSN and NCN Core Switches in Germany (GE)**

| <b>Title</b>                    | <b>USG</b>                     | <b>NATO</b>                       |
|---------------------------------|--------------------------------|-----------------------------------|
| 1. Communications Facility      | Siemens EWSD                   | Siemens HICOM 350E/HiPath 4000    |
| 2. Circuit Connectivity Points  | Campbell Barracks, GE          | Heidelberg, Campbell Barracks, GE |
| 3. Number of Circuits           | 30                             | 30                                |
| 4. Circuit Type and Bandwidth   | 4 wire 2.048 Mbps              | 4 wire 2.048 Mbps                 |
| 5. Circuit Restoration Priority | TSP0/R0                        | TSP0/R0                           |
| 6. Communications Mode          | Digital E1 PRI                 | Digital E1 PRI                    |
| 7. Alternative Route            | Multiple DSN-NCN Interconnects | Multiple DSN-NCN Interconnects    |
| 8. Precedence (Highest)         | Routine                        | Routine                           |
| 9. Security Level               | Clear                          | Clear                             |
| 10. Termination Equipment       | DIU-60                         | DIU-N2(N4)                        |
| 11. COMSEC Equipment            | None                           | None                              |
| 12. Network Access              | NCN (606)<br>Other NDN (604)   | DSN (ZZ01)                        |

**Resources Responsibilities of the DSN and NCN Core Switches in Germany (GE)**

| <b>Resource</b>                                | <b>Heidelberg DSN</b> | <b>Heidelberg NCN</b> |
|------------------------------------------------|-----------------------|-----------------------|
| 1. Prepare Site                                | USG                   | NATO                  |
| 2. Provide Termination Equipment               | USG                   | NATO                  |
| 3. Install Termination Equipment               | USG                   | NATO                  |
| 4. Operate and Maintain Interconnect Equipment | USG                   | NATO                  |
| 5. Logistic Support for Interconnect Equipment | USG                   | NATO                  |

**NATO UNCLASSIFIED**

NATO UNCLASSIFIED

Attachment 2 to Annex A

| Points of Contact in Germany                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| USG                                                                                                                                                                                                                                                                       | NATO                                                                                                                                                                                                                                                                                                                                                                       |
| <p>Mr. Harold Schmidt<br/>DCO Chief<br/>43<sup>rd</sup> Signal Battalion</p> <p><u>Location:</u><br/>Building 7, Campbell Barracks<br/>Heidelberg, Germany</p> <p>Commercial: +49.(0)6221.57.4000<br/>DSN: 314-370-4000</p> <p>Email: Harold.Schmidt@43sigbn.army.mil</p> | <p>Mr. Peter Sembritzki<br/>Engineer<br/>NCSA Sector Heidelberg</p> <p><u>Location:</u><br/>Building 60, Campbell Barracks<br/>Heidelberg, Germany</p> <p>Commercial: +49.(0)6221.398.600<br/>DSN: 314-374-5600<br/>NATO Core Network: 238.5600</p> <p>FAX: +49.(0)6221.398.685<br/>DSN FAX: 314-374-5685</p> <p>Email: SembritzkiP@lahd.nato.int</p>                      |
|                                                                                                                                                                                                                                                                           | <p>Mr. Peter Vanderbiesen<br/>Network Squadron Commander<br/>NCSA Sector Heidelberg</p> <p><u>Location:</u><br/>Building 60, Campbell Barracks<br/>Heidelberg, Germany</p> <p>Commercial: +49.(0)6221.398.205<br/>DSN: 314-374-5205<br/>NATO Core Network: 238.5205</p> <p>FAX: +49.(0)6221.398.685<br/>DSN FAX: 314-374-5685</p> <p>Email: vanderbiesen@lahd.nato.int</p> |

# NATO UNCLASSIFIED

Attachment 3 to Annex A

## Technical Characteristics of the DSN and NCN Core Switches in Italy (IT)

| Title                           | U.S.                           | NATO                                                   |
|---------------------------------|--------------------------------|--------------------------------------------------------|
| 1. Communications Facility      | NORTEL MSL-100                 | Siemens HICOM 350E/Hipath 4000 & NET.com VX900 (SHOUT) |
| 2. Circuit Connectivity Points  | Capodichino, IT                | Bagnoli, IT                                            |
| 3. Number of Circuits           | 23                             | 23                                                     |
| 4. Circuit Type and Bandwidth   | 4 wire 2.048 Mbps              | 4 wire 2.048 Mbps                                      |
| 5. Circuit Restoration Priority | TSP0/R0                        | TSP0/R0                                                |
| 6. Communications Mode          | Digital T1 PRI                 | Digital E1 PRI                                         |
| 7. Alternative Route            | Multiple DSN-NCN Interconnects | Multiple DSN-NCN Interconnects                         |
| 8. Precedence (Highest)         | Routine                        | Routine                                                |
| 9. Security Level               | Clear                          | Clear                                                  |
| 10. Termination Equipment       | NT6X27                         | DIU-N2(n4)                                             |
| 11. COMSEC Equipment            | None                           | None                                                   |
| 12. Network Access              | NCN (606)<br>Other NDN (604)   | DSN (ZZ01)                                             |

## Resources Responsibilities of the DSN and NCN Core Switches in Italy

| Resource                                       | Capodichino DSN | Bagnoli NCN |
|------------------------------------------------|-----------------|-------------|
| 1. Prepare Site                                | USG             | NATO        |
| 2. Provide Termination Equipment               | USG             | NATO        |
| 3. Install Termination Equipment               | USG             | NATO        |
| 4. Operate and Maintain Interconnect Equipment | USG             | NATO        |
| 5. Logistic Support for Interconnect Equipment | USG             | NATO        |

**NATO UNCLASSIFIED**

Attachment 3 to Annex A

| <b>Points of Contact in Italy</b>                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>USG</b>                                                                                                                                                                                                                                                                                                                                                                                                           | <b>NATO</b>                                                                                                                                                                                                                                                                                                                                                                                                |
| <p><b>Mr. Sean Flannery</b><br/> <b>U.S. Naval Computer &amp; Telecommunications Area Master Station, Europe Central (NCTAMS EURCENT)</b></p> <p><b>Location:</b><br/> <b>Building 440, Naval Support Activity, Capodichino/Naples, Italy</b></p> <p><b>Commercial: +39.081.568.6010</b><br/> <b>DSN: 314-626-6010</b></p> <p><b>FAX: +39.081.568.3702</b></p> <p><b>Email: flannerys@nctams.naples.navy.mil</b></p> | <p><b>Mr. Rosario Romeo</b><br/> <b>Head, Plans and Requirements</b><br/> <b>NCSA Sector Naples</b></p> <p><b>Location:</b><br/> <b>Building M, NATO HQ, Allied Joint Force Command Naples</b><br/> <b>Bagnoli/Naples, Italy</b></p> <p><b>Commercial: +39.081.721-5610</b><br/> <b>NATO Core Network: 433.5610</b></p> <p><b>FAX: +39.081.721-5615</b></p> <p><b>Email: rromeo@jfcnaples.nato.int</b></p> |
|                                                                                                                                                                                                                                                                                                                                                                                                                      | <p><b>Mr. Gabriele Ciurleo</b><br/> <b>Head, Network Equipment</b><br/> <b>NCSA Sector Naples</b></p> <p><b>Location:</b><br/> <b>Building M, NATO HQ, Allied Joint Force Command Naples</b><br/> <b>Bagnoli/Naples, Italy</b></p> <p><b>Commercial: +39.081.721-2646</b><br/> <b>NATO Core Network: 433.2646</b></p> <p><b>Email: gciurleo@jfcnaples.nato.int</b></p>                                     |

**NATO UNCLASSIFIED**

Attachment 4 to Annex A

**Technical Characteristics of the DSN and NCN Core Switches in United States**

| <b>Title</b>                    | <b>U.S.</b>                         | <b>NATO</b>                                                                    |
|---------------------------------|-------------------------------------|--------------------------------------------------------------------------------|
| 1. Communications Facility      | Nortel MSL 100                      | Siemens HICOM 350E/HiPath 4000 & NET.com VX900 (SHOUT)                         |
| 2. Circuit Connectivity Points  | Langley, AFB, VA, USA               | NCSA Sector Norfolk<br>7857 Blandy Road<br>Suite 100<br>Norfolk, VA 23551-2490 |
| 3. Number of Circuits           | 23                                  | 23                                                                             |
| 4. Circuit Type and Bandwidth   | 4 wire 1.544 Mbps                   | 4 wire 2.048 Mbps                                                              |
| 5. Circuit Restoration Priority | None                                | TSP0/R0                                                                        |
| 6. Communications Mode          | Digital T1 PRI                      | Digital E1 PRI                                                                 |
| 7. Alternative Route            | Multiple DSN-NCN Interconnects      | Multiple DSN-NCN Interconnects                                                 |
| 8. Precedence (Highest)         | Routine                             | Routine                                                                        |
| 9. Security Level               | Clear                               | Clear                                                                          |
| 10. Termination Equipment       | VT 1.5, B8ZS/ESF, Nortel SPM module | DIU-N2(N4), E1/T1 Shout                                                        |
| 11. COMSEC Equipment            | None                                | None                                                                           |
| 12. Network Access              | NCN (606)<br>Other NDN (604)        | DSN (ZZ01)                                                                     |

**Resources Responsibilities of the DSN and NCN Core Switches in the United States**

| <b>Resource</b>                  | <b>Norfolk DSN</b> | <b>Norfolk NCN</b> |
|----------------------------------|--------------------|--------------------|
| 1. Prepare Site                  | USG                | NATO               |
| 2. Provide Termination Equipment | USG                | NATO               |
| 3. Install Termination Equipment | USG                | NATO               |

**NATO UNCLASSIFIED**

**Attachment 4 to Annex A**

|                                                |     |      |
|------------------------------------------------|-----|------|
| 4. Operate and Maintain Interconnect Equipment | USG | NATO |
| 5. Logistic Support for Interconnect Equipment | USG | NATO |

| <b>Points of Contact in the United States</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>USG</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>NATO</b>                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>1 CS, SCMO</b><br><br><b>Location:</b><br>175 Sweeny Blvd<br>Langley AFB, VA 23665-2289                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Mr. Phil May</b><br>Network Management Division Transmission Section<br><br><b>Location:</b><br>NCSA Sector Norfolk<br>7857 Blandy Road<br>Norfolk, VA 23551-2490<br>Commercial (757) 7477-3554 (U. S.)<br>NATO Core Network: 555-3554                                                                                                                                                                                    |
| <b>MSGT Phillip Chambers, Primary POC</b><br>Comm (757) 764-2109<br>DSN 312 574-2109<br>Email: <a href="mailto:phillip.chambers@langley.af.mil">phillip.chambers@langley.af.mil</a><br><br><b>TSGT Roy Baker</b><br>Comm +1(757) 764-9979<br>DSN 312 574-9979<br><br><b>Mr. Leroy Byrd, Alt POC</b><br>Comm +1(757) 764-2212<br>DSN 312 574-2212<br>Email: <a href="mailto:Leroy.byrd@langley.af.mil">Leroy.byrd@langley.af.mil</a><br><br><b>Location:</b><br>175 Sweeny Blvd<br>Langley AFB, VA 23665-2289 | <b>Mr. Don Bruce</b><br>Systems Manager, Voice System<br>Transmission Infrastructure Section<br>NCSA/SHAPE<br><br><b>Location:</b><br><u>NCSA SHAPE</u><br><u>Casteau, Belgium</u><br><br><u>Commercial : +32.6544.7360</u><br><u>DSN: 314-423-7360</u><br><br><u>FAX: +32.6544.7556</u><br><u>DSN FAX: 314-423-7556</u><br><br><u>Email: <a href="mailto:Donald.Bruce@nacosa.nato.int">Donald.Bruce@nacosa.nato.int</a></u> |

## **ANNEX B - PROVISION OF ACCESS FOR AUTHORISED NATO USERS TO THE GATEWAYS USING THE DSN**

### **1. Purpose**

The purpose of this annex is to set forth the practices and procedures that provide authorized NATO users with access to the NCN via the DSN. NATO policy for using national defence networks is contained in *AC 322-D(2003)014, Policy on the Implementation of the Partially Rationalized NATO General Communications System (NGCS)*. The NATO policy statement requires that the best possible use be made of national defence networks wherever technically feasible and cost effective.

### **2. Requirements**

#### **a. Service initiation, modification, termination and failure reporting**

NCSA will have full flexibility in requesting the activation, modification or termination of services. Detailed procedures and instructions on service, performance, fault reporting, configuration accounting and security management within DISA for the services provided to NATO are included in Annex A. Peace, exercise, tension and wartime, as well as off-duty hours, weekends and holiday periods will be considered.

#### **b. Service restoration priority**

DISA will accept and act upon NATO service restoration priorities as approved by NCSA. In the case of failure of a given service within the DSN, services will be restored in accordance with their restoration priorities, irrespective of whether they are for NATO or national users.

#### **c. Responsiveness**

DISA will be responsive to the requirements of NATO. This applies to peacetime, exercise, times of tension and war.

#### **d. Operation and Maintenance**

USG will be responsible for the technical operation and maintenance of all communications equipment used to provide service except for NATO-provided terminal and gateway equipment, which will be operated and maintained by NATO personnel.

### **3. Budgetary and Financial Considerations**

Funding responsibilities are covered by section 6 of the MOA, and no additional charges will be made for the provision of these services.

### **4. Service Types**

The service types provided by the DSN to NATO shall be equivalent to the maximum extent possible to the service types currently provided throughout the DSN. The service types and gateway connections shall be agreed between the parties and included in this annex. The types of service to be provided are as follows:

a. Telephony Services

Automatic outgoing and incoming circuit switched connections will be in accordance with the numbering plans for the NCN and the DSN. Circuit switched connections will be used to provide traditional telephony services.

b. Dial-up Connection

Automatic outgoing and incoming circuit switched connections will be in accordance with the numbering plans for the NCN and the DSN dial-up connections will be used to provide telephony services.

5. **Terminal Equipment**

Terminal equipment for standard unsecure voice services to NATO users shall be provided by USG. Secure terminal equipment for NATO shall either be provided by USG or by NATO.

6. **Applicability**

The practices and procedures set forth in this annex apply to the USG and the NATO call originators, as well as their telecommunications facilities handling calls under the terms of this MOA.